CHAPTER 2

ARCHITECTURAL DEVELOPMENT IN TOWNS AND CITIES 1890-1910

1. **Zagreb**
2. **Ljubljana**
3. **The Works of Jan Kotěra throughout the Czech Lands**
4. **Brno**
5. **Zlin**
6. **L'viv**
7. **Wroclaw**

CHAPTER 2

1. Zagreb

Unlike most of the Central European Countries and States who had in the greatest part fought for and won their independence from Austria-Hungary after the revolutions of 1848 onwards, there was no such visible national drive or ambition among the diverse groupings that made up Croatia at this time, albeit that Croatia did not exist as a defined country.

For centuries theirs had been an internal struggle balancing the needs of diverse nationalities, religions and political leanings. As part of the struggle in South Eastern Europe since the battle of Kosovo in 1389 bloodshed and banditry had been commonplace in the Balkans. Andre Gerolymatos in his book The Balkan Wars, 2002, gives flesh to the events and characters of this very bloody and brutal struggle.[1] It appears that Croatia, being on the edge of this conflict and particularly in looking north to the newly emergent Czech Lands, was keen to a find a new commercial path leading away from ethnic and religious strife. With the increase of banking, commerce, knowledge and entrepreneurship the people of Croatia, like their other Central European cousins, were able to shed the medieval feudalism of the past and begin to establish a new order to move society forward.

One of these first acts in many towns and cities was to decommission the old ramparts and the *glacis*, the military no-man's-land where previously troops had trained beyond the fortifications perimeter. This act released very large tracts of land for new development. These defences were cumbersome and outdated because their creation was based on a much warranted historical siege mentality where these emplacements were strengthened throughout the sixteenth, seventeenth, eighteenth and nineteenth centuries. However what had been demonstrated in the sieges of Vienna and Prague during the 1848 revolutions was that very little could withstand a well-trained army with modern munitions. Therefore their course was run and they were dismantled throughout the second half of the nineteenth century.

In taking away these defences with their bottleneck city gates architects and planners were now able to reassess the flow of traffic, people, goods and communication through towns and cities. Much of Croatia was once part of the Roman civilisation. Beneath the layers of all those centuries the major axis and grid-plan layout of the old Roman settlements was very clear. The new zoning structures of industry, commerce,

government, judiciary and people's entertainment still followed the Roman model for good reason. Based to a large extent on topography, available raw materials, grazing and sanitation, the model had worked relatively well for centuries. With careful re-planning in more modern times all the benefits of the models could be retained while at the same time allowing the size, complexity and density of all those necessary functions of town and city infrastructure to grow and prosper.

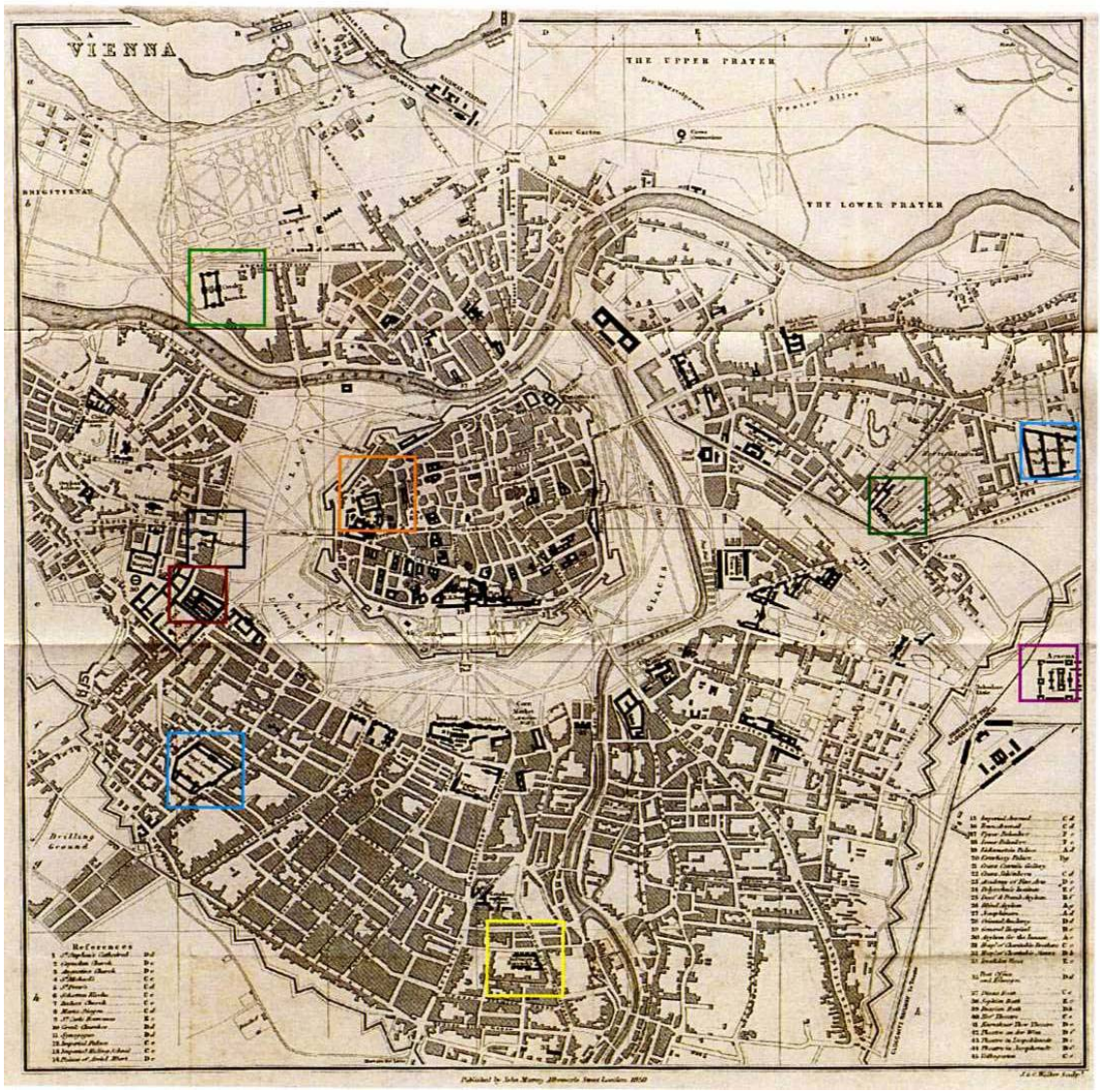
One of the first cities to adopt this approach was Zagreb where in 1865 the first 'Regulatory Plan' was put in force. Zagreb at this time was very much a new centre having been 'constructed' in 1850 by Imperial Decree by uniting the Kaptol and Gradec, the clerical and secular powerhouses respectively since the Middle Ages – the two sides had engaged in a bloody conflict, hacking each other to pieces. This bloodletting gave *Kravi Most* (Bloody Bridge) its unhappy name as it crossed a stream which used to run red with the blood of combatants. Adding the areas of Kaptol and Gradec to the lower city (Donji Grad) and amalgamating all with the royal city of Zagreb established the extent of the new city.

This further expansion of territory meant that modernization would advance with greater speed with attendant urbanization and population growth – pre-requisite factors for achieving much in a relatively short period. From 1860, with the arrival of the railway, the expansion of Zagreb south across the tracks and over the river, or north through the Mednevica Mountains would tax the greatest planners of the day. Between 1865 and 1887 the city underwent much planning and re-planning. Although one of the two masters of the resultant development scheme is celebrated the other is partly lost to history, except for recognition in Croatia via the postage stamp. The two masters of this re-planning were Milan Lenuci and Hermann Bolle who, as the architect of the duo, is better remembered albeit wrongly by Aleksander Laslo in 'Zagreb 1880 – 1918'[2].

It is a misrepresentation to suggest that the Vienna Ringstrasse served as a model for Zagreb's re-development; as the former is little more than a military protection zone constructed to safeguard the Imperial Family comparisons are difficult. The Hofburg Imperial Palace (2.1) is so placed to allow direct reinforcement from two newly constructed barracks and an arsenal located near to the railway stations.

Equally the lessons of the revolutions of 1848 were well learned as the Ringstrasse was built to a 200 feet wide circuit making any form of blockading virtually impossible while also enclosing the old city, home of radical and intellectual alike. This allows for rapid troop deployment, the whole is an overbearing return to the City of Great Monument

2.1 Vienna City Plan 1858, (note the Glacis arsenals and barracks)



- Imperial Cavalry Barracks
- Infantry Barracks
- Lombardy & Venetian Guards
- Gun Manufactory
- Infantry Barracks
- Arsenal
- Cavalry Barracks
- Imperial Artillery Barracks
- Imperial Arsenal & Town Arsenal

albeit under a very fine camouflage of excellent building. One may also look at some of the open flat expanses that surround the complex of palaces and apartments remembering their former use as parade grounds and exercise yards. It can be seen that these wide vistas are areas where cavalry might swiftly quell any uprising. It is important to consider the excellent reputation of Austrian cavalry and be reminded that the finest of all equestrian training was available at the Spanish Riding School within the Hofburg complex.

Despite the magnificence of the bourgeois villas, many of which were designed by the then relatively unknown Otto Wagner, none of the Ringstrasse is public property. It is misguided to compare the Ringstrasse with any part of Zagreb's 'Green Horseshoe', which has for 120 years been admired by many. By referring to (2.2) it is easy to see why. All was conceived on a human scale and deliberately developed within a complete synergy of architecture and parks to delight everyone. This is not to say that the prestigious buildings from around the parks' edges and squares (the Academy of Sciences and Fine Arts, the University, the Central Station, Technical School, National Theatre and urban villas housing the famous and prosperous of Zagreb – the Buratti and Vraniczany families, Zagreb's Milan Auirus and the pre-eminent painter Vlaho Bukovac) were any other than a compendium of historicist mix and match. However to dismiss this achievement is to miss the point embodied within – a point known to Owen, Tourier, Cabet, Geddes, Howard etc, which is contained in the statements of the Russian Peter Kropotkin, expressed in 'Fields, Factories and Workshops' 1899.[3]

Kropotkin as an anarchist thinker and member of the ruling Russian aristocracy was able to combine intellectual rigour and revolutionary fervour within his writing. Kropotkin's argument can be summed up as being: throughout the twelfth century a 'communalist revolution' had occurred in Europe; the expression of this revolution was through the urban fraternities and guilds whose operation within the parish was intended to benefit all equally i.e. everyone looking after everyone else. Unfortunately much of this local organisation and management had been swept away in the sixteenth century with the re-emergence of centralised monarchy and an unthinking authoritarian tradition. However following the revolution of 1848 the flame of freedom had been relit.

At least one building within the Green Horseshoe was modern and that was the Arts Pavilion of 1895. In essence the construction of the Arts Pavilion is very much the story of this type of interdependence and co-operation in a far more expansive form across the nations of Central Europe. It is the oldest purpose-built exhibition centre in the

2.2. Milan Lenuci, Green Horseshoe 1897

King Tomislav Statue

The Front of the Railway Station

Zrinjevac or Nikola Subić Zrinski Square

Croatian Supreme Court

Looking Back Toward the Station

The Arts Pavilion

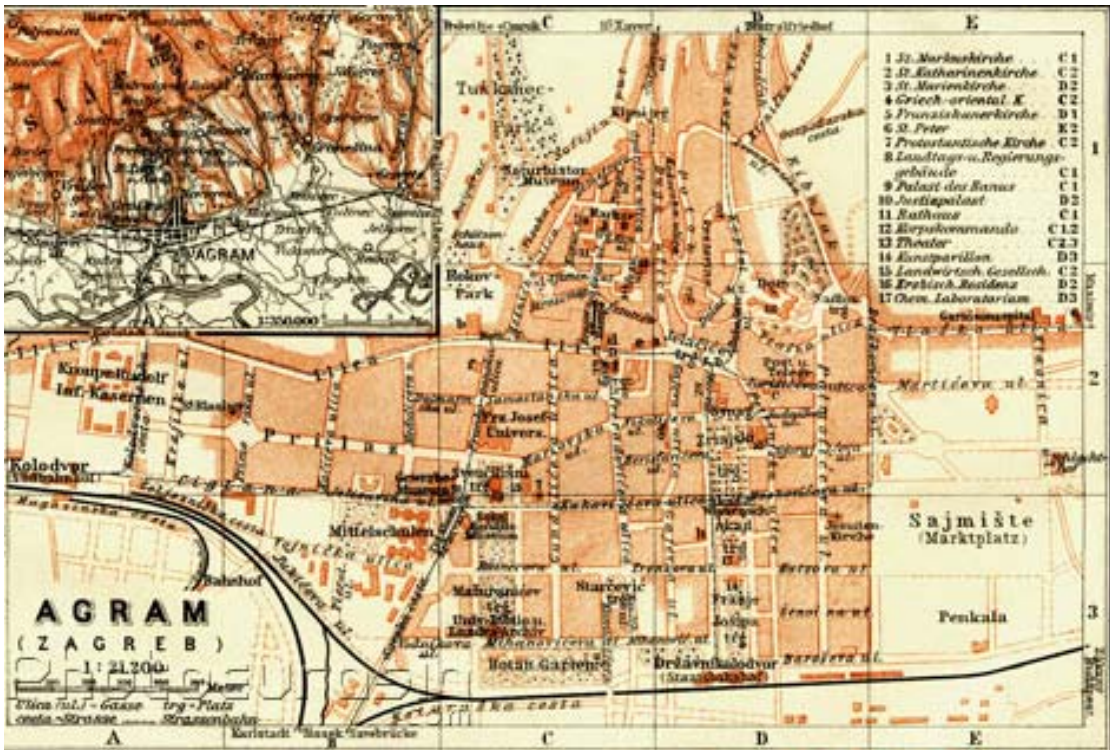
Although the buildings are a mix of styles from Classical to Baroque to Beaux Arts to Art Nouveau, their park setting takes great account of the developing leisure, transport and communication needs of an emergent modern city, being able to adjust to changes of infrastructure and population growth.

Slavic south, initially given in 1895 by the Croatian painter Vlaho Bukovac as a focus for rousing national pride. With the Hungarian collaboration of 'The Festivity of Millennium' both Croatia and Slavonia, who were politically linked to the Magyars, had to contribute arts and artefacts. Bukovac persuaded Croatian artists to ask for their own independent pavilion to be erected in Croatia. This masterstroke allowed for the iron framework of the pavilion to be transported from Budapest to Zagreb at the end of the exhibition. Once rebuilt in Zagreb the pavilion would become the centrepiece of the Green Horseshoe.

Although Helmer and Fellner, the chosen architects of the Habsburg Monarchy, were contracted to complete the design, the original construction in Budapest had been carried out by Danubius through architects Korb and Giergl who all worked with Honisberg and Deutsch under the control of Milan Lenuci, the city surveyor from 1897-1898 in the Zagreb reconstruction. At this time in Zagreb the railway lines which terminated directly to the south of the city (2.3) centre were bordered by the river causing difficulties for any expansion. A new designation of space was required and a plan was arrived at by 1889. As with all planning decisions in Zagreb many views and opinions were sought and taken into account. So it was that the 1889 master plan defined the area north of the railway lines that is Donji Grad, Kaptol and Gorni Grad as the city centre divided into block strips with integral green belt. In addition to the three squares forming the Green Horseshoe there were a further five squares Starcevic, Maruli, Mazuranic (2.4) Theatre Square and finally the English Botanical Gardens, contributing massively to the 'lungs of the city'. From 1860 development plans defined land usage for this area as residential and business building, while the strip of land sandwiched between railway and river was designated as industrial usage with the main port being located on the Sava River.

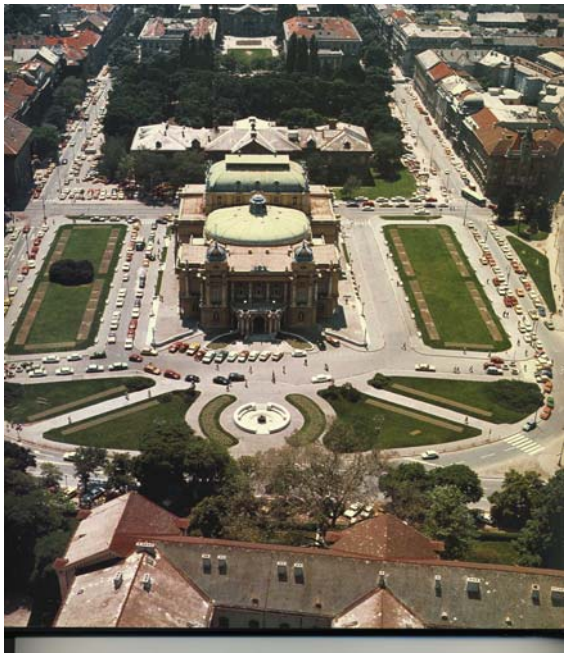
The expansion of business and commerce and attendant population growth required that the plan of 1889 needed to be reconsidered. Milan Lenuci, who by this time was acknowledged as a planning master, continued to work on the re-definition of the Zagreb city space. An illustration of this is a comparison between the supplies of foodstuffs. Le Boqueria in Barcelona is a much visited and loved food market which on a daily basis serves approximately 1,000 - 1,500 people and as such has been known throughout the years for its colour, hustle and bustle. Within Zagreb there was an informal market (now housed as the Dolac Market) where on a daily basis 60,000 – 70,000 people visited. That is 8% - 10% of the total population and has been so for centuries.

2.3 Zagreb, map of the city above the railway line 1911



2.4 Three views of the Parks - the ‘Lungs of the City’

Theatre Square,



Mazuranic Square

King Tomislav Square

Even this extreme movement of people and produce within Zagreb is accommodated because of accomplished town planning. Lenuci's genius was in transferring the city centre to the south below the railway line and extending the city southward across the river. By 1907 this plan had redrawn Zagreb's spaces. To the south of the river was *Novi Zagreb* (New Zagreb) created in conjunction with the *Zagrebački Velesjam* (Zagreb Trade Fair grounds). In addition to these major changes many other smaller but important changes and revisions had happened between the 1860s and 1907. The major of these were the relocation of Cattle Square, known as New Square once the cattle were gone, and finally becoming Zrinski Square in 1866. The cattle were relocated to what is now University Square (Marshall Tito Square). New roads were created - Marija Valerija Street (today Praska) entering form the north, and from the northwest Berislavićeva Street. This was accompanied by other modernisation – in 1877 gas lighting, replaced by electric lighting in 1907. Benches were first installed in 1880 after the massive earthquake, accompanied by the gift of a meteorological post in 1884 and, with the Jubilee Economic Exhibition at the University; one of the largest buildings of all The Music Pavilion was gifted by Eduard Pristerac in 1891.

It is important at this point to qualify the 'historicist mix and match' alluded to earlier in the buildings of the Green Horseshoe, as the builders and architects Franjo Klein, Janko Grahor, Ivan Plochberger and Janko Janibrisak at least deserve naming although they are almost unaccredited in published works to date outside of their homeland. It was Hermann Bolle who throughout the period became the renovator of many of Zagreb's greatest ecclesiastical buildings following the damage of the earthquake, but his rather German conservative approach to restoration ignored many of the cultural accretions of the previous centuries. He came into far greater favour (possibly becoming a naturalised 'Croatian') with a beautiful modern fountain for Zrinjevac but his major works were the City's Craft School 1888-1892 (the present Museum of Arts and Crafts) and the Mirogoj Cemetery 1876 with the addition of long domed arcades in 1917 (2.5). However Bolle's major contribution to Croatian society, like that of Milan Lenuci's, was to be a key figure in the promotion of the arts, principally from 1882 to 1914 as Director of the Arts School, Zagreb, and in Paris in 1900, as organiser in chief of the Croatian exhibit at the *Exposition Universalle* (Universal Exhibition) and as chief conservator for art throughout Croatia and Slavonia for historical monuments.

It is clear that Lenuci and Bolle were major figures in the advancement of town planning and urban development and it is useful to place all of the planning and reconstruction of Bolle and Lenuci and the Civil Authorities in a wider context. In addition to creating new main roads, numerous other roads were widened or re-routed to meet the needs

2.5 Hermann Bolle, Mirogoj Cemetery, Zagreb 1876. (Long Domed Arcades added in 1917.)

of the growing numbers of people and their everyday requirements. It is the sum total of addressing all these conflicting requirements which place Bolle and Lenuci in the vanguard of establishing the city and it's planning as a modern imperative within Central Europe.

2. Ljubljana

Ljubljana, like Zagreb, was limited in expansion by natural geography being funnelled into the Ljubljana Gate, bordered in the north by the Alps and in the south by the Adriatic and Mediterranean. This geographical position placed Ljubljana on a trade route linking Europe to the East. Although legend has it that Jason and the Argonauts wintered here while stealing the Golden Fleece for the Greeks, what is certain is that the ancient town of Emona, situated in the southern part of modern-day Ljubljana was settled by the Romans. From 50 B.C the town grew to a population between 5,000 and 6,000 people who were mainly merchants, artisans, civil servants and war veterans.

The importance of Emona came from its geographical position as one of the gateways on The Amber Road. Because of the relative value of amber and other trade goods the town was fortified with a surrounding wall four metres thick, in places rising to a height of eight metres. With the collapse of the Roman Empire Emona was destroyed but the remains of the town with their quarters, roads and civic centres still clearly defined became a blueprint for further settlement with the current layout growing from resettlement. From the sixth century to the nineteenth century the town grew to be a modern hub of industry and commerce. This development was greatly enhanced by the arrival of the railway from Vienna in 1849, to be connected to Trieste by 1857. The citizens of Ljubljana were now offered the opportunity to travel thereby linking them more closely with the rest of Europe.

Despite an enormous exodus of the Slovene population between 1850 and 1910, with some 125,000 going to Cleveland, Ohio [i.e. 22% of the total population], Ljubljana modernised very rapidly. In 1820 the first Savings Bank was established; the first Slovene language newspaper published in 1843; public gas lighting introduced in 1861; the establishment of Slovenska Matica publishing house in 1864; the founding of a tobacco factory employing over 1,000 workers in 1873; the first Slovene mayor elected in 1882; electric street lamps installed in 1883 and a municipal water supply in 1895. Finally, following part of the reconstruction after the 1895 earthquake, electric trams were introduced in 1901.

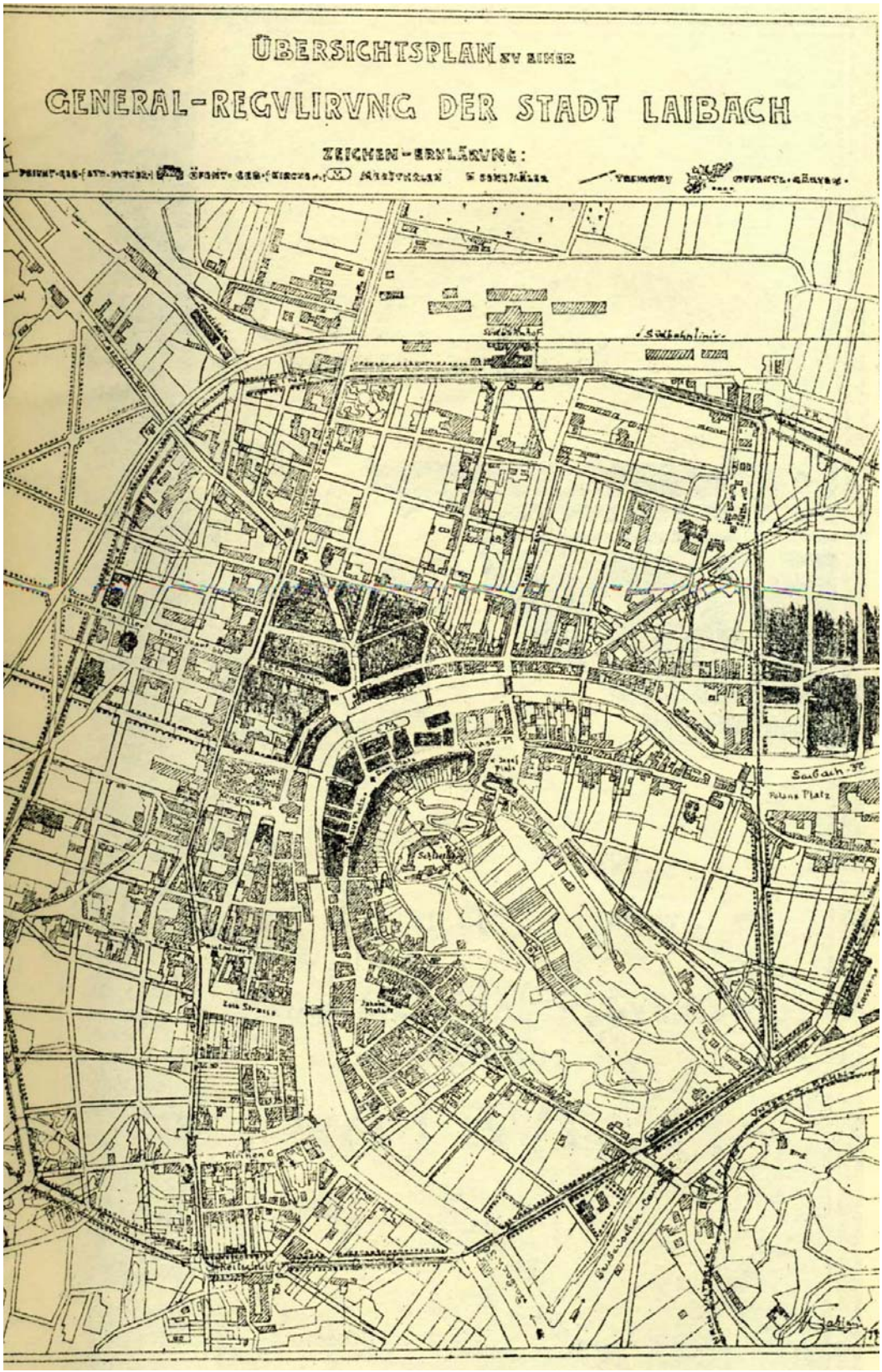
Unfortunately having suffered a crippling earthquake in 1551 this catastrophe was revisited upon Ljubljana in 1895. When the dust settled ten percent of the buildings were rubble and almost all of the other ninety percent of structures suffered some damage on a varying scale. The city fathers saw this as an opportunity to ask the most pre-eminent city planner of the day, Camillo Sitte, to design a restructuring plan. However a native Slovene, Maks Fabiani, submitted a rebuilding plan that was preferred and it was he in concert with the redoubtable mayor, Ivan Hribar, who was to drive this vision forwards.

Although Maks Fabiani is credited with putting Ljubljana's regulatory plan in place he had a further partner in this venture. The senior architect, J. Duffe, adjusted the plan and secured acceptance from the authorities. This plan consisted of a ring of avenues in development of the city centre which were particularly well realised in most of the design. One of the great strengths of Fabiani's plan was based on the fact that he knew the city very well. He carried out a very precise scientific analysis of the urban fabric, which determined that the city, being situated under the castle hill, was the starting point for re-planning. Unlike Sitte, whose plan for Ljubljana had focused on a relatively small area where he changed or re-planned very little, Fabiani addressed all of the functional problems of a city moving into the twentieth century. His analysis recognised that the layout of Ljubljana had been very well resolved over the centuries. Much of what would be done was to echo previous systems while at the same time considering Ljubljana's expansion.

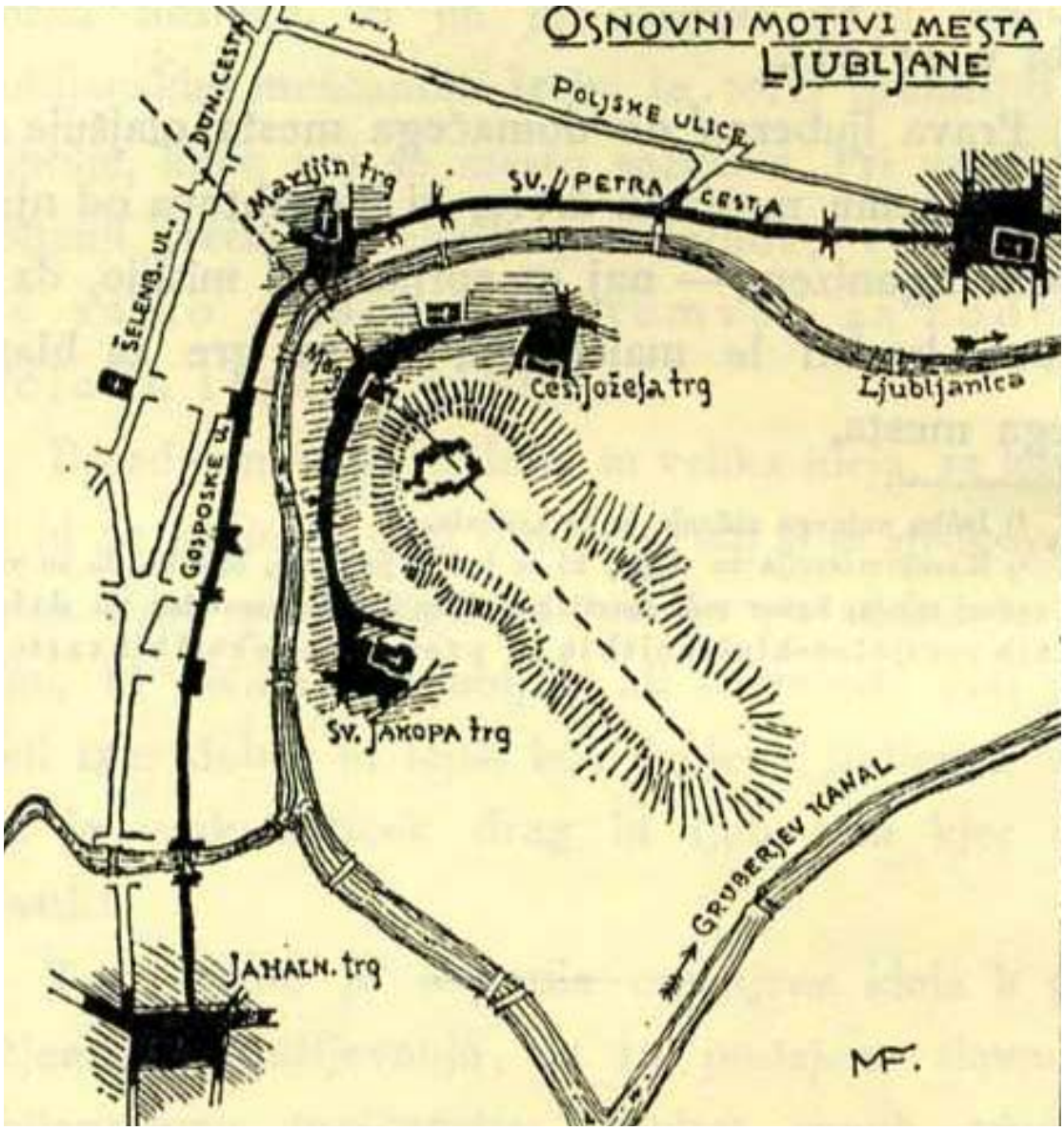
The first act was to repeat the two encircling roads which wound around the castle hill descending to the two banks of the Ljubljanica River; in effect encircling the densely populated city centre in a protective ring (2.6) and allowing for planned, zoned development outside of this area. Having collaborated with Otto Wagner on the text of *Moderne Architektur*, Vienna 1896, Fabiani was well versed in expressing radical planning solutions. His ability in analysing the ebb and flow of Ljubljana's population was in identifying both Roman and Medieval entry and exit points.

Fabiani began by forming new roads and squares on these lines thereby both preserving and enhancing the architectural whole. His analysis allowed him to pinpoint the oldest city line within the medieval town that was re-plotted to connect two important squares (2.7). He was able to add this knowledge to the great understanding he had of Roman Emona. Essentially it was a rectangular town surrounded by high walls bisected by the *Cardo Maximus*, the main street running north to south further divided transversely by the *Cardo Decumanus* with a classical forum situated at the crossing of

2.6 Max Fabiani, General Regulatory Plan, Ljubljana 1895. (Detail of encircling double-moat ring.)



2.7 Max Fabiani, General Regulatory Plan, Ljubljana 1895. (Lines of connection and bisection.)



Squares joined by darker lines above and below the Ljubljanica with a 45^{o} linear axis through the Castle Hill as a system of orientation.

the main axis with a temple and basilica. In addition to the walls, there was a double moat for even greater protection for the wealth invested in the amber trade and other commodities. He also identified a later Roman settlement to the northwest of the present city with a baptisterium and basilica and a fourth and fifth century graveyard. Because of his great respect for architectural classical forms and their supreme orchestration of space, Fabiani followed the lines of these previous plans wherever possible.

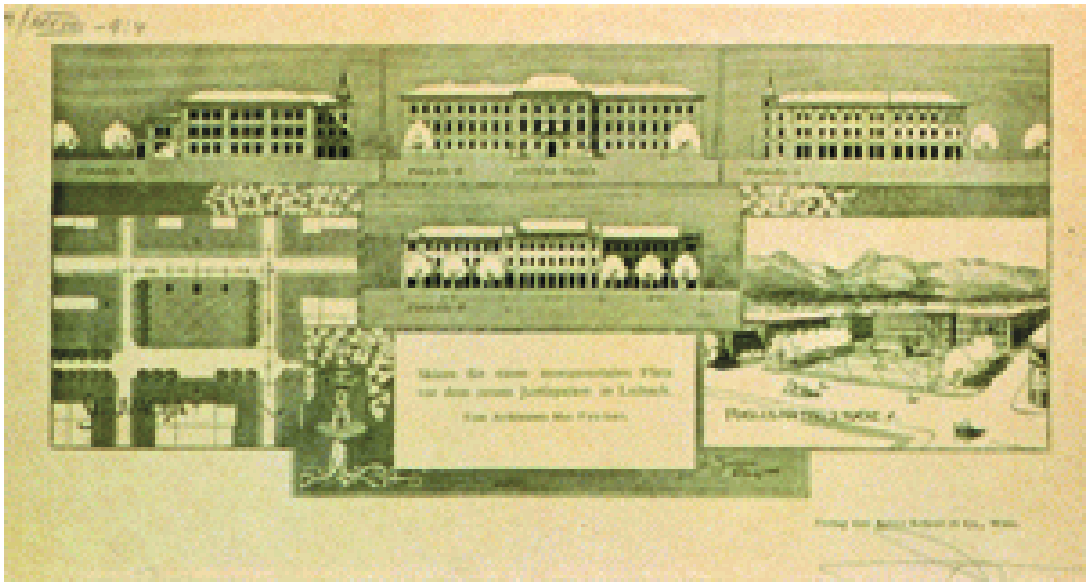
In addition he was immediately careful to protect and preserve many gothic and Baroque buildings as part of Ljubljana's living history. Fabiani also anticipated the problem of the proximity of the railway to the city centre. This would cause difficulties for future expansion so he planned to move it away, replacing it with an enormous square between the existing city and a newly developed northern quarter Bezigrad, 1899, which he had planned as space for additional industry, housing and recreation. Fabiani was also very careful to limit buildings to no more than four storeys, thereby preserving the dominant motif of Castle Hill to create a great sense of security.

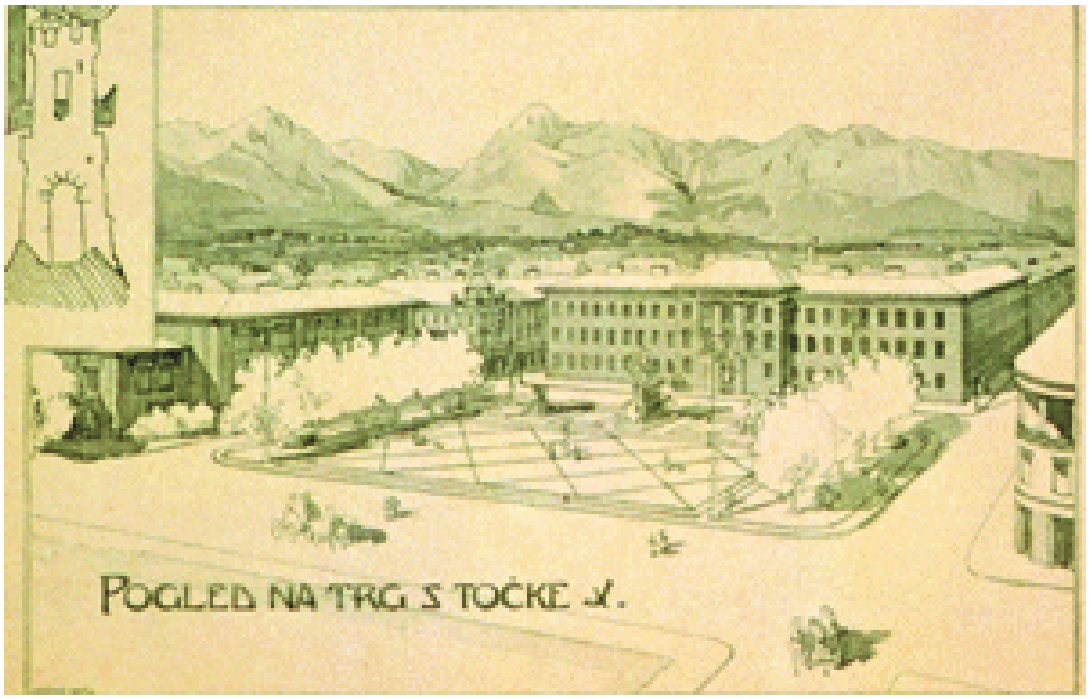
Within this scheme Fabiani created new streets: Miklošičeva which linked with the new *Slovenski trg* (Slovenian Square) (2.8), a beautifully resolved dominant classical space, now known as Miklošičev Park 1900-1901. Around its perimeter were the Law Courts and the Krisper House (2.9) and other superb buildings erroneously labelled as Secessionist by Breda Mihelic in Shaping the Great City.[4]. In fact Fabiani moved away from any suggestion of decorative Secessionist motifs to a modernist frame of reference very rapidly as in the Hribar and Bamberg Houses (2.10). Other important architects from this period and location were: Josip Vancas: City Savings Bank, Zagreb, 1903-1904, Hotel Union, Ljubljana, 1904-1905 and People's Loan Bank 1906-07; Freidrich Sigmundt: Urbanc Business Premises, Ljubljana, 1902-1903 and Ciril Metod Koch: Hauptmann House, The Small Skyscraper, 1904.

But there is one fine Secessionist work in Ljubljana, the *Zmajski Most* (Dragon Bridge) by Jurij Zaninovič 1901, Ljubljana, (2.11). Yet even this encompasses a contradiction as it is a monumental construction of reinforced concrete made to look like stone. In construction methods alone this must transport the whole to a more modern period than that of the Secessionists.

2.8 Max Fabiani, *Slovenski trg* (Slovene Square) now Miklošičev Park 1901

Buildings around the square depicted in a set of illustrations and postcards.





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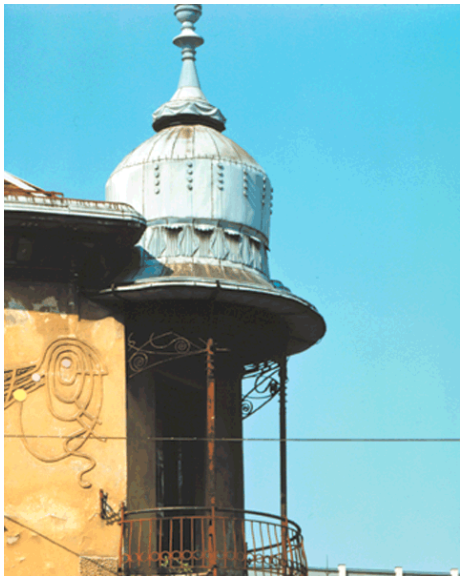
3. © Blau and Platzer, Getty Inst. 1999

4. © City of Ljubljana Archives, 2006

2.9 Max Fabiani, Krisper House 1900-1901, Miklošičeva 20, Ljubljana. (Builder Filip Supaneie)

1 Detail of the corner turret showing a paired down undecorated aesthetic, 2 full view which continues with the plain façade.



Ciril Metod Koch, 12 Uden House, Ljubljana 1902. (Builder Jakob Accetto)

Fabiani's aesthetic was shared by others although the capital and globe of the tower were more of the period as seen in the decorative detailing on the People's Loan Bank, Josip Vancas 1907.

2.10 Max Fabiani, Ivan Hribar House, Tavčarjeva 2, Ljubljana 1902-1903 (Builder Gustav Tonnies)

Max Fabiani, Bamberg House, Miklošičeva 16, 1906-1907. (Builder Gustav Tonnies)

2.11 Jurij Zaninovič, *Zmajski Most,* (Dragon Bridge)*,* Ljubljana 1901

One of the world's first reinforced concrete bridges guarded by four bronze dragons the symbol of Ljubljana.

Ljubljana was a place of great building expansion: theatres, hospitals, museums, schools, hotels, department stores, houses and public buildings accompanied by wide, paved, tree-lined streets. The rate of building from 1896-1910 had increased threefold. One of the most notable of all the architects was Jože Plečnik (1872-1957) who had worked alongside Otto Wagner in Vienna and had been fascinated by Wagner's ability to employ Renaissance, Baroque and Neo Classical influences in his architecture. This versatility was required by the Austro-Hungarian authorities but Plečnik, as somewhat of a provincial, was unused to this level of masterful adaptability although his Grand Tour had included Rome, which had prepared him to understand the monumental city.

He quickly realised that Vienna as a utilitarian metropolis was outside of his experience. This 'innocence' afforded Plečnik an enormous advantage. As a 'petit bourgeois' Catholic Slovenian, someone from the provinces of the Austro-Hungarian Empire, he had a narrow view but intrinsic in this was his great love and respect of national forms and identity allowing him to drive his personal vision forward. These factors were of enormous value to his spiritual and intellectual language although this placed him in a difficult position:

> To the conservatives he appeared an innovator, and to the modernist a conservative.[5]

In fact he was both, who through this duality of understanding would produce original buildings, remodels, reconstructions and regulatory plans of exceptional variety throughout his life. Contrary to the opinion of Friedrich Achleitner that Plečnik was frightened by modern metropolitan culture and disgusted by the modernist *tabula rasa* (a scraped tablet, a fresh start) which would imply Plečnik was unable to understand all that was happening around him, nothing could be further from the truth. Plečnik not only used all of the complexities before him but was by his understanding able to proceed beyond a national frame of reference with all the inherent complications of ethnicity, religion and material metropolitan culture kept in balance by his innate understanding of time and place as evidenced in his work.

To try to understand Plečnik or to know him to any degree is immensely difficult as from his early years he was a very private man. The two things which were clearly very important to him were a strong sense of family bounded by religious life within an emphatically liberal environment. Plečnik's absolute faith in the intellectual and artistic underpinning from his 'motherland', made him Slovene first, last and always.[6]

Unlike his brothers his educational progress was fractured but his latent talent was recognized in 1892 when he won a regional scholarship to the School of Applied Arts in Graz. Although Plečnik was encouraged by Leopold Theyer and Theodore Muller he appeared unaware of his exceptional talent for drawing. It was left to his brothers to eventually persuade him to present a portfolio to Otto Wagner, the newly appointed head of the Vienna Academy of Fine Arts, 1894, at the age of twenty two. In the fine detailing and use of line and tone, Wagner recognised a fine degree of technical ability but was very clear that Plečnik was not as yet equipped for studentship at the Academy. The ideal situation was for Plečnik to experience the demands of the city while gaining far greater experience.

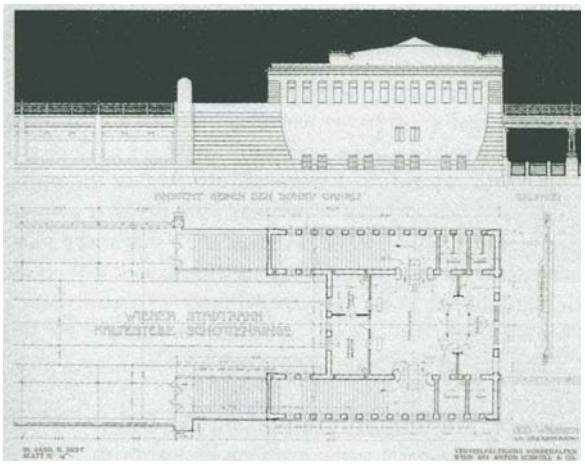
A compromise was reached; Plečnik would work as a draughtsman within Wagner's studio. Here he would work on the drafting of designs for the Stadtbahn (2.12) and Danube Canal as well as other prestigious projects that Wagner, now created Professor, would almost certainly be given. So began the building of Plečnik's career, the relaxed atmosphere in the Wagner studio contrasting with his experiences elsewhere allowed him to produce a personal sketch or drawing for his portfolio every day after work, until he had sufficient to be presented to and accepted by the Academy in 1895.

As the photograph (2.13) shows Plečnik was very much a young man with a sense of style. He was four or five years older than his fellow students with a greater maturity. His single-minded pursuit of his own perfection led his colleagues and professors to find him unsociable. This attitude allowed a meteoric progress from simple façades to complete villa plans embracing all the new forms and materials of iron and concrete in just three years. This immense capacity was to produce designs for posters, monuments, furniture and exhibition design. In 1898 when designing the Great Exhibition at the *Prater* (a rotunda built for the 1873 World Exhibition in Vienna) Adolf Loos commented on the fact of this work extending to every detail of man's environment. Following work for his thesis, a design for a health resort at Scheviningen near The Hague aroused Wagner's interest especially in Plečnik's use and placing of a pair of columns with a flight of steps wound around and between them. This would be the beginning of Plečnik's manipulation and exploration of classical forms as beautifully resolved in the Zale Cemetery Complex from 1938-1940.

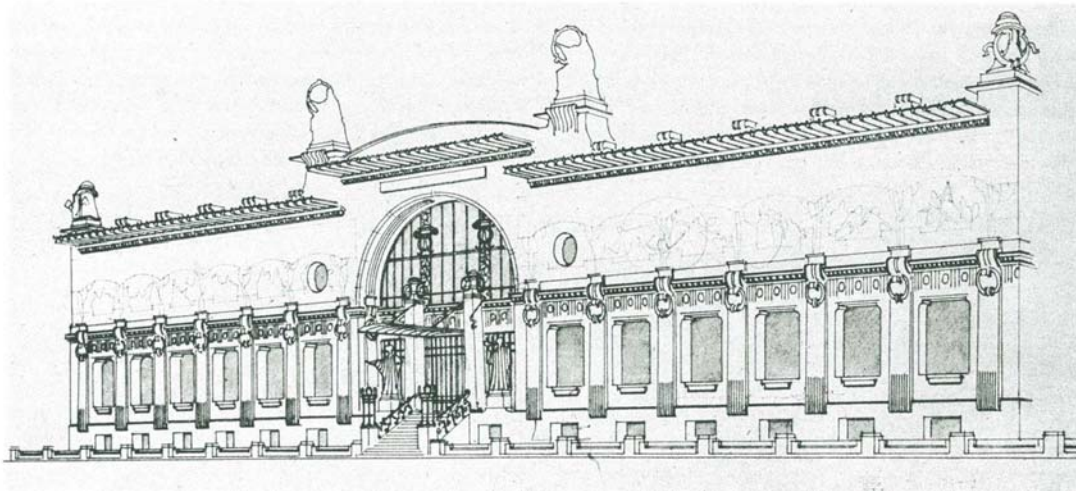
In 1898 Plečnik's student thesis won the much-coveted Rome Scholarship with a purse of 3,000 Austrian Crowns. He began his travels in Venice where he was given to remark:

2.12 Jože Plečnik, Otto Wagner's Atelier, 1900

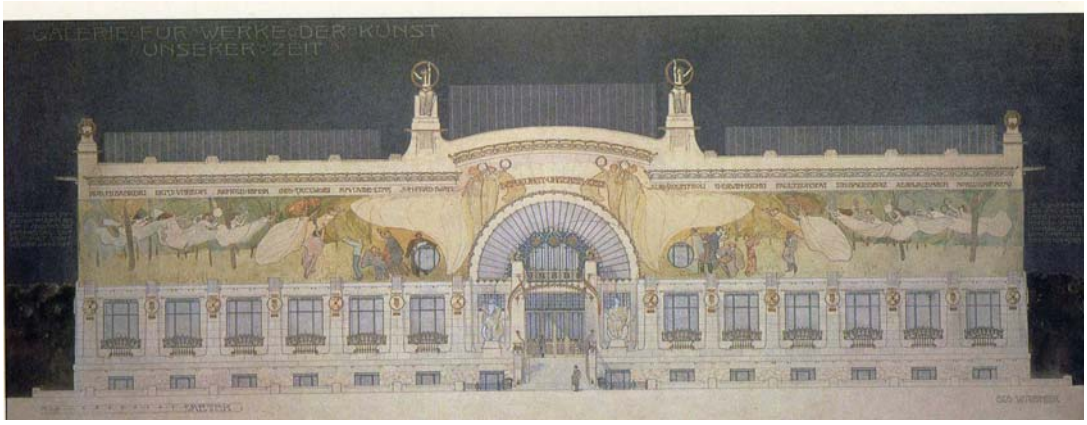
A relaxed Plečnik in the studio, 1900



Plečnik's drawing of the Vienna city railway Schottenring station, 1900



Otto Wagner's Modern Gallery as drawn by Plečnik, 1900



Otto Wagner's representation in pencil and watercolour of the Modern Gallery, 1899

2.13 Jože Plečnik, A young Man in Vienna 1893

Plečnik as a stylish 20 year old

Plečnik seated second from the right with Josef Hoffman standing behind. Otto Wagner seated far left with JM Olbrich standing extreme left, as viewed.

> Everything that is old here is incredibly beautiful and everything that is new there [Vienna] seems mediocre.[7]

Then on to Rome, for so long his imagined spiritual home. Plečnik was able to contrast the German love of the fantastic and mythical to the might of Zuccari, Michelangelo and Palladio demonstrated in those most reliable materials, brick and stone. Within this visit two realities were born in Plečnik's mind; to always use the very finest materials available, preferably hewn from the quarries or dug from the earth and the realisation that he was to see

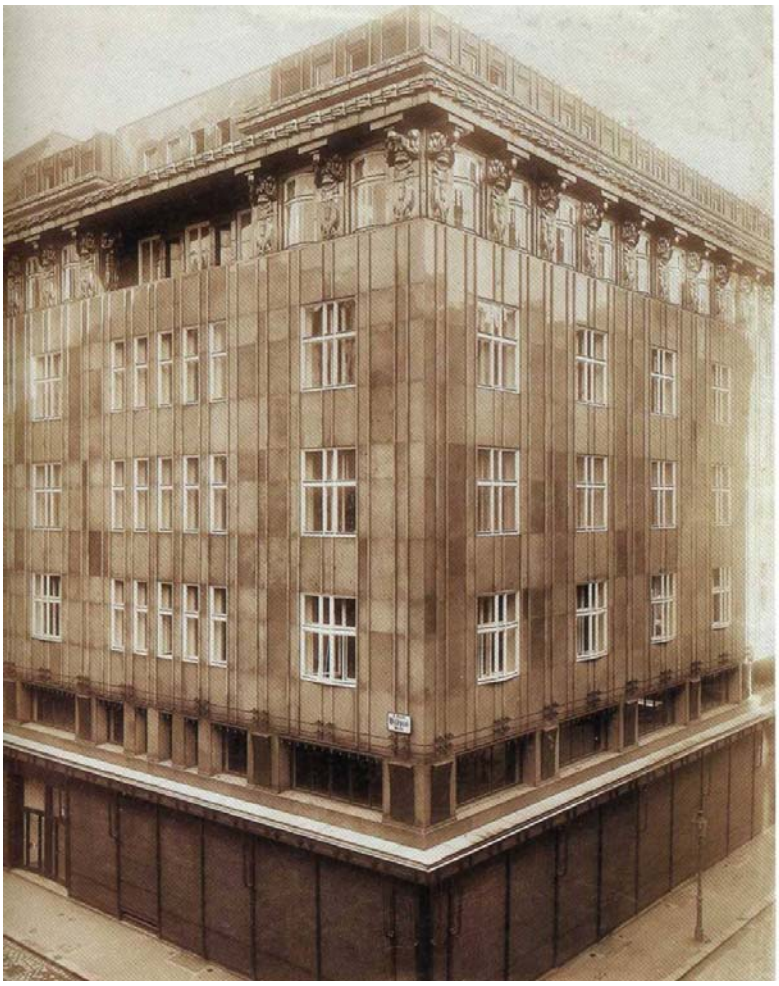
> Ljubljana as a place where both worlds came together; a mediaeval German tapestry with elements of the Renaissance and Baroque woven into it.[8]

This was the realisation that would become a beautifully executed 'dream' when Plečnik celebrated and embellished his capital, his Ljubljana. Following his trip to Italy he progressed to France but while in Paris was forced to return home because of his mother's death. Plečnik returned to Otto Wagner's studio briefly but was unable to work with Wagner's profit obsessed son. For the next decades Plečnik would enjoy a stellar career, firstly in practice in Vienna – the Langer House, Hietzing, 1900-1901; Loos Villa, Melk, 1901; Weidman Apartment, Vienna, 1902 and the Zacherl House, Vienna, 1903-1905 (2.14). In addition to these were numerous other buildings, monuments, fountains and furniture, one of his first loves.

He was then invited to Prague by his friend and fellow student of Wagner, Jan Kotěra, to take up a teaching post at the School of Applied Arts in Prague. This appointment began in the spring of 1911, continuing to 1921 when following an invitation from Jan Vurnik he was to return to Ljubljana to take up a professorship at the newly inaugurated University of Ljubljana. At the same time he also accepted, on the recommendation of Jan Kotěra, the position of chief architect of Prague Castle at the personal invitation of Tomáš G Masaryk, the President of the new Czechoslovak Republic. It is clear from his works that Plečnik belongs in this company as a modern, not being tied to a slavish copying of any tradition or forms; his remodelling of parts of *Prazsky Hrad* (Prague Castle) among others demonstrate his abilities as both innovator and manipulator of exterior and interior architectural schemes (2.15-16).

In fact these appointments were part of an amazing number of offers including chairmanship of the Prague Academy of Fine Arts and a post of Professor at the Royal Academy of Arts and Crafts in Zagreb. Having decided to return to Ljubljana, Plečnik

2.14 Jože Plečnik, Zacherl House, Vienna 1903-05



Contemporary view of the Exterior

Two Modern photographs:

1. The top storey Atlantes (carved male figures, telemones) support the broken cornice of the roof

2. The marble entrance corridor

2.15 Jože Plečnik, Hradcany (Prague Castle) (remodelling first phase 1922-26)

Details of the President of the Republic apartment

1. Window detailing

2.The President's lift

3. Vestibule before the President's stairs, note the columns tapering top to bottom

2.16 Jože Plečnik, Hradcany (Prague Castle) (remodelling first phase 1922-26)

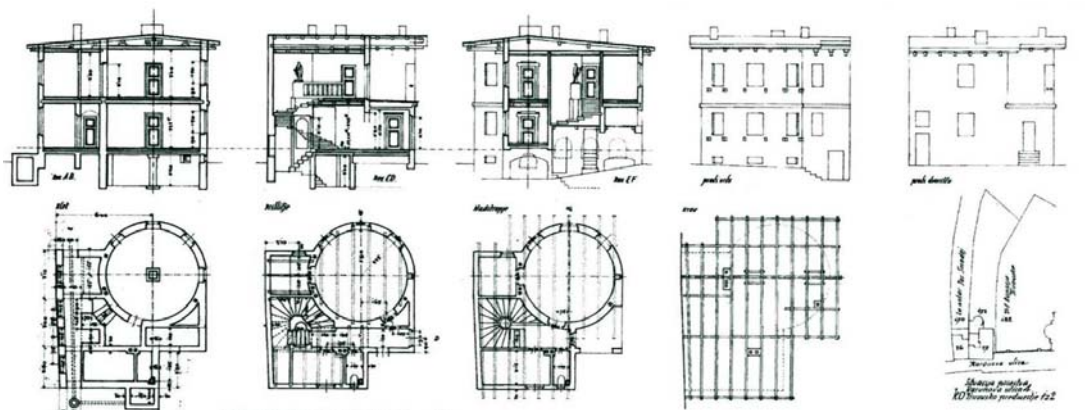
1. Garden of Eden/Paradise Garden, the giant Mŕakotin granite basin and entrance steps. In the background is the diorite bowl above the steps

2. The President of the Republic Impluvium, that is an opening in the atrium which in Roman times was used to gather water, hence the arrangement of a perforated window below which is a shallow cistern

2.17 Jože Plečnik, his own house, Trnovo, Ljubljana 1923

1. Viewed from the rear garden looking towards the front of the house with two storey extension.

2. Plans and elevations of the extension



3. The garden end of the conservatory

4. The conservatory, extension and garden

began by extending his own house in Trnovo, 1923-1925 (2.17). This was followed by a rapid succession of works from 1923-1940.

3. The Works of Jan Kotěra throughout the Czech Lands

The theoretical positions of Gottfried Semper, Alois Riegl and Adolf Loos were in some ways made concrete by the work of Jože Plečnik and Jan Kotěra (1871-1923). As the next champion of Central European architecture and 'The Founder of Modern Czech Architecture', Kotěra needs to be understood in historical context.[9] There is a tendency to believe that the latest form, the most modern, is the only acceptable form of architectural expression and that any reference to past historical styles demonstrates a lack of understanding or ability – as proffered in judgements about the work of Jože Plečnik. What is overlooked in this argument is that what we now accept as the established 'greats' from the history of architecture and art were seen by the conservative establishment of their day as renegade *avant gardes* who would destroy all that was civilised and rational.

This position is well documented with the works of Bohumil Kubišta, 1884-1918, Emil Filla 1882-1953 and Vicenc Beneš, 1883-1979, and a particular form of Bohemian Cubism learned to an extent from living in Paris and knowing the works of Picasso and Braque:

> The substance of any all new and good art, as represented by Picasso and Braque, consists in greater richness, abundance, and perfection of its formal means.[10]

This Cubism counter-pointed by Rondo-Cubism and Functionalism became a mixed style for a short period in the Czech Lands, and in Prague and Brno in particular. Czech sympathies, more than was usual for the time, would value whatever was good and use it in a whole new modern idiom. This was always the case with Jan Kotěra whose approach accorded with an earlier but very similar definition of the power of architecture to liberate men.

> Architecture unshackled which would afford to the greatest genius the greatest opportunities of producing the most powerful efforts of the human mind.[11]

It was this freedom of self expression which Wagner and his students/collaborators Fabiani, Loos, Plečnik and Kotěra valued and exemplified, shown by their abilities to mix their personal demonstration of classical proportion and the latest advances in materials and technology. Kotěra's architectural works stretch across the Czech Lands from the northern town of Hronov to Treborn in the south and from Holoubkov in the west to Frýdek-Mistek in the east. Among these buildings were houses, villas, pavilions,

studios, town halls, museums, banks, offices, hotels, opera houses, castles, schools, university departments and a waterworks. (2.18)

Kotěra travelled widely and absorbed ideas and influences in addition to the many cultural flows and cross-pollination that were an enormous part of his exposure to Wagner's circle. This contact enabled Kotěra's career to progress with great speed. In 1896 as Wagner's student at the Viennese Academy of Fine Art he won the golden Fugger medal. 1897 saw him win the Prix de Rome for his final college project. By 1898 he had a first teaching post at the Prague School of Applied Arts.[12]

Parallel to all this knowledge gathered by personal contact, the developments in lithographic printing and publication meant that art and design magazines were being launched worldwide so that the dissemination of ideas was greatly increased. One building more than any other, often regarded as his finest work, demonstrates all of these contacts and influences. The City Museum in Hradec Králové, 1909–1913 (2.19) is an astonishing mix of a classical monumental structure interspersed with clear elements of English Arts and Crafts: Baillie Scott, Crane and Webb and Charles Harrison Townsend.

It is wise to remember at this point that although England never had a fully developed Art Nouveau style (relying more on a re-interpretation of native British decoration as in the '*Tudric'* and '*Cymric'* ranges of Liberty's), Arthur Heygate Mackmurdo through his cover of the book 'Wrens City Churches' (1883) created the very first image that would become the *leit motif* of Art Nouveau. Amalgams of sensuous vegetational forms undulate and flow across surfaces in tandem with a superb understanding of asymmetrical balance. Much of this work, including that of Charles Rennie Mackintosh, was published and promoted via 'The Studio' magazine which was disseminated widely across Europe and additionally Kotěra had intimate experience of Secessionist forms.

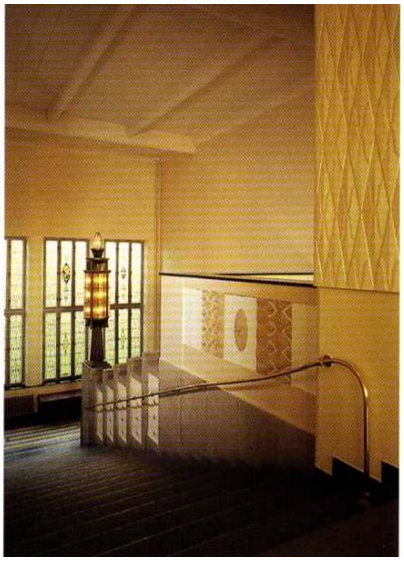
Kotěra now added to this mix the brick architecture of Holland and Belgium as in Hendrik Petrus Berlage, being greatly impressed by Berlage's masterpiece The Amsterdam Exchange or 'Beurs' 1903. Other influences are taken from Henry Van De Velde, Bloemenwerf, 1895; Peter Behrens, Haus Behrens, 1901; J.M. Olbrich, Grosses Glückert Haus, 1901; Frank Lloyd Wright, Dana House, 1902; Josef Hoffman, Palais Stocklet, 1905; Otto Wagner, Steinhof Church, 1905-1907 and finally to Fyodor Shekhtel's Derozhinskaia's Mansion, 1901 in European Russia (2.20).

2.18 Jan Kotěra, architectural works

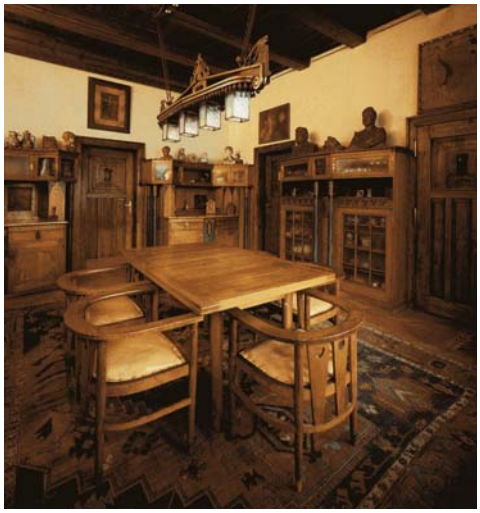
1 A kiosk on the bridge in Hradec Králové 1910

2 Vrsovice waterworks, water-tower 1906

3 Králův Dvůr workers' housing



4 Hradec Králové City Museum stairs 1913

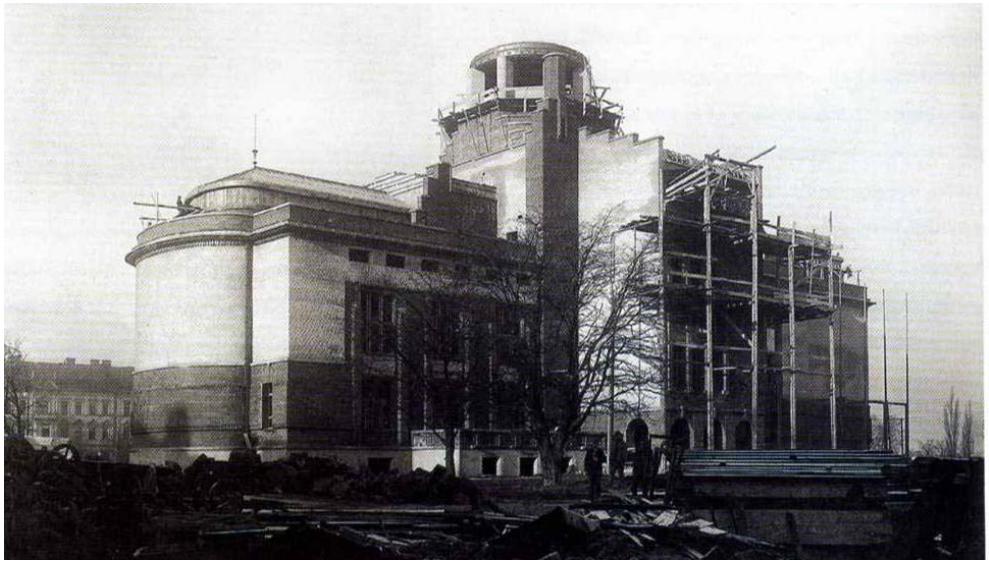


5 Stanislav Sucharda's villa dining room 1906-07

6 The National House Prostějov main façade 1905-07

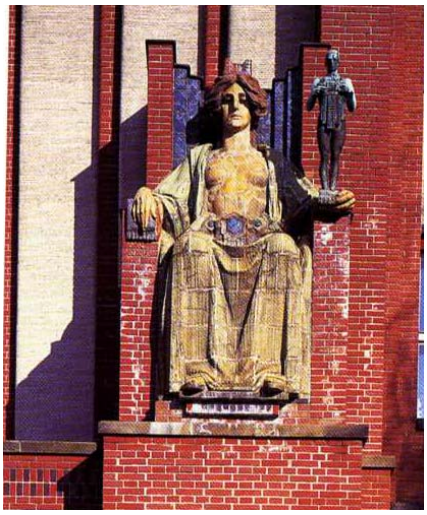
2.19 Jan Kotěra, Hradec Králové Museum, Hradec Králové 1909-1913

1. Main Facade



2. Construction during 1910

3. Fountain at the foot of the entrance stairs



4. History Figural Sculpture by Stanislav Sucharda

2.20 Fyodor Shektel, Derozhinskaias Mansion, Moscow 1901

1. View of the front façade.

2. A stone fireplace within a wooden surround.

3. A newel-post lamp-standard.

As with Western and Central Europe, Eastern Europe enjoyed great publication and discussion of art and design through Diaghilev and his entrepreneurship, publishing *Mir Iskusstva* in 1898, closely modelled on "The Studio". There was also a greater degree of published work made available to Kotěra on Steel Framed Buildings especially 'Sullivans Guaranty Building', Sullivan and Wright, 1894-95. Although little is known of Kotěra's American visit, except that he was accompanied by Josef Urban, it is reasonable to surmise that in designing the Czech Section of the World Exhibition in St. Louis in 1904 he had extensive contact and discourse with influential figures including Hermann Muthesius, the most eminent of theoretician/architects who judged Kotěra's exhibition to be,

> an exquisite work.[13]

Kotěra (and his mentor Otto Wagner) passed this experience and understanding on to the next generation of Czech modernist architects and many others in a seamless flow. For the development of modern architecture the new form of planned and zoned cities was an absolute necessity. Much that was happening in the Czech Lands was driven by industry and commerce particularly in Brno and Zlin.

4. Brno

Brno had grown steadily in size and importance from the eighteenth century situated as it is at the foot of the Czech–Moravian Highlands at the confluence the Srvatka and Svitava Rivers, which played an important part in the development of Brno's textile industry. Like so many other cities Brno was ringed by defensive bastions, a moat and a city wall. Early expansion began to move the suburbs outside of these walls where the first textile and engineering factories were established from 1763. From this date Brno's total population, which had never exceeded 8,000, tripled to over 25,000. As a consequence the dismantling of the city fortifications became an imperative. So it was that one of the first known planned and zoned housing policies for the newly arrived workforce could be put in place. Because of unforeseen problems the plan devised in 1845 had to be held over until later.

Following the 1848 Revolution, 28 administrative units were attached to Brno through the abolition of feudal remnants*;* this expansion increased the city area from 349.3 to 4,485.5 acres (7.01 square miles).

> In 1849 there were 42 factories in Brno; 24 cloth-manufacturers, 5 spinning mills, 1 linen mill, 1 hat manufacturer, 3 metal works, 3 tanneries, and 3 manufacturers of food products serviced by an expanded population of 50,000.[14]

The delayed plan of 1845 developed by the provincial building director Josef Esch constituted two new avenues crossing one another, with construction activities restricted between these new avenues and the city walls. In 1852 Josef Seifert, the city planner, was able to develop Esch's plan where the destruction of the city walls and fortifications allowed replacement by a circular avenue, Brno's Ringstrasse, designed by Ludwig Forster in 1860. Very quickly Johann Lorenz, the city engineer, modified this design in 1861 and by 1862 further developments by public competition was being considered. However, competitions were limited to German-speaking architects as nationalism through the Germanization of official functions was still very much in place. The winning design was by E. Fassbender, a Viennese architect, but fortunately this plan which would have ruined the appearance of central Brno was not implemented.

A combined plan was arrived at from the design of Moritz Kellner, Franz Neubauer and Josef Arnold, but because of the reduction in public green spaces that resulted, this plan was also rejected. Finally a definitive plan of 1863 was adopted and from this point forward Brno grew in a controlled and planned manner (2.21-22), reminiscent of Zagreb where a ringing group of parks similar to Lenuci's Green Horseshoe were established. Progress meant that the city centre remained as a focus for social and public life but some Baroque palaces and associated churches were demolished to create space for new planning projects.

> The prosperity of Brno from the 1860s moved from a dependence on textiles production to devising more inventions and improvements, reaching a peak from 1867-1868 with 27 patents being granted.[15]

This degree of invention allied to mechanical engineering enabled the growth of other industries in Brno particularly metalworking and the production of boilers. One invention that would continue to guarantee Brno's prosperity was the production of the first ever diffusers to extract sugar from sugar beets – sugar having become an essential condiment for the modern table. In addition to Bedrich Wanieck founded in 1864, the factories of C.F Luz and T. Bracegirdle merged their businesses in 1902 to form the First Brno Engineering Works employing 1,010 workers in 1910, rising to 3,000 by 1915.

This development was made possible by the introduction of electrical power. Brno's second mechanized industrial revolution began with the city electric power station becoming online from 1898 enabling the modernity of Brno to be better illuminated. In 1901 modern Liberty Square was illuminated by six electric lamps; in 1905 the station

2.21 Náměstí Svobody (Freedom Square, originally Lower Market) Brno 1869

1. Was created following the demolition of the 13th century ,St. Nicholas's Church opening out the area as part of the reconstruction incorporatring the the Brno Ringroad

Theofil Hansen, Besední Dům (Beseda House), Brno, 1871-73

2. One of the many early buildings created on the Ringroad folowing the demolition of the city walls and opening out of squares and thoroughfares

2.22 Denisovy sady, a typical Baroque park, Brno 19th century

1 Remodelled and used as part of the green spaces “lungs of the city” from 1860-1890

Fellner & Helmer, divadlo Na hradbách (Theatre on the Wall) 1882
The wider sweep of the new roads is seen in this period postcard

1 © jižní morava.cz 2006
2 © andreas praefcke/carthalia 2006

concourse was lit by three arc lamps and the pedestrian tunnel passing under the station had six lamps installed. By 1913 the city was hooked up to a higher capacity generating station that allowed the illumination of Vineradska, Radnicka and the Radnici trail. This increase in electrical output allowed the Brand and Lhullier foundry to develop. But of all Brno's industrial factories it was 'Lederer and Porges' founded in 1889 that was to become the famous 'Královopolská' works with 1,850 employees in 1907, producing a vast range of steam boilers, railway storage tank cars, wood working machines, deep freezers, steam engines, steam rollers and railway and road bridges.

The most reliable figures show, that by 1902 Brno had a total number of 3,926 factories. As many as 12,609 workers produced textiles in 159 factories and 293 tanning and industrial factories employed 6,562 people. Garment mills, numbering 2,355, employed 6,151 persons. So that this number of people could be housed and fed, 241 construction firms employed 4,488 workers to build necessary factories, shops, accommodation and other infrastructure. To supply the dietary needs of workers and their families, 2,686 people worked in 362 factories involved in food production. To recap, that is 32,496 people engaged in planned industry in a zoned, controlled environment. Nowhere was there comparable organised and controlled expansion. In the growth of Brno from 1910 onwards, the previous attention to planning from 1850-1890 was to have great benefit.

The other essential to this development was a much-needed growth in the network of rail links so that the new markets for the ever-expanding industrial products of Brno could be served. As before, this development was well planned and staged. In 1851 Brno was linked with Ceska Treborra and was further linked with Střelice with goods warehouses in 1856. To expedite commercial traffic a customs house was built on an undeveloped tract of land creating the Lower Station Rosice, primarily for freight, while the Upper Station Rosice remained for passengers. A second railway link to Vienna was completed in 1870 via Střelice, Moravský Krumlov and Hrusovany–Sanor. In 1888 a double track system and junction was constructed to link the Upper and Lower Stations.

Public transportation needs in an expanding city were also served by the development of the tramways, which from 1869 had been horse drawn. These trams were converted to steam power in 1884 operating along 6.5 km of track. By 1896 steam was replaced by electric with the first system being operated by *Österreichische Union Elektrizität Gesselshaft* (Austrian Union Electricity Company) on a tramway that expanded to 22.5 km. although this was not an entirely integrated system. Nationalistic differences

between Germans and Czechs meant that further extension to Tivoli and Tabor, in the Czech suburbs, was delayed until 1914.

One further requirement of an expanding modern city is an empowering, integrated, educational system that supports advancement free of any nationalistic controls or prejudices. In 1849 the first institution of higher education, the Technical College of Brno, was founded. By 1873 the dual teaching languages of Czech and German had been reduced to German speaking only. In response, after some failure and delay, a Czech-speaking Technical College was established in Brno in 1899. This disparity between German and Czech-speaking was echoed in the school system where German-speaking schools were founded in 1778, whereas the first Czech speaking schools were not founded until nearly one hundred years later in 1869. Despite these distinctions and animosities Brno was by 1910 a truly modern, planned urban and rural conurbation that was able to service all needs by an expanding, controlled infrastructure. One key figure in the development of this expansion is Otto Eisler who with his brothers Artur, Moric and Hugo established their construction firm to work alongside architects and planners as one of the earliest examples of Design and Build paralleling those in Lviv and Wroclaw.

5. Zlin

The story of Zlin is very much the story of Bat'a Shoes. Zlin and its environs had grown from a small town in the 16th century to a larger, mainly agricultural, town in the 19th century. With the founding of the T. & A. Bat'a Shoe Company in 1894 (Tomáš, Anna and Antonin Bat'a), shoe production would depart by stages from the centuries-old cobbler's workshop to a modern factory system. The first shoe, the 'Batorka', of fabric and canvas construction was produced in 1897. Progress of plant mechanization according to Fordist principles advanced very rapidly and by 1905 2,200 pairs were being produced daily by 250 employees. In 1909 the first shoes were exported to Germany, the Balkans and the Middle East in a greater range of styles than ever before. The excellent quality and value for money saw sales top two million pairs by 1917, produced by 5,000 employees. Investment in more modern production equipment allowed the company to grow and prosper, as did the surrounding community. Bat'a built houses, schools and hospitals, developing the infrastructure of Zlin as a whole particularly from 1920-1939 (which will be discussed later).

6. Lviv

At this time the Polish lands consisted of a number of 'states' including Galicia within which were parts of the Ukraine. (As a consequence this work uses Ukrainian as opposed to Polish, Russian or German or Latin names which collectively over the centuries have been; Lwow, Lvov, Lemberg and Leopolis). At first sight the architecture of Lviv would appear to have no connection with any ideas of modernism but the quality that makes many of the buildings modern is not discerned by looking. As in Zlin the most important factor in the building of Lviv is a partnership between builder and architect and here within this economically important 'second capital' design and build had an early flowering.

With the reform of the Austrian Empire in 1860 the status of Lviv as the capital of the autonomous Kingdom of Galicia and Lodomeria was greatly enhanced. As a consequence the late nineteenth century and early twentieth century saw a great expansion of architectural works and their associated schemes. From 1885 building zone regulations allowed for the development of a modern, urban infrastructure which, like other cities, would see the movement away from horse-drawn trams to electric power in 1894 for the opening of the Galician National Exhibition. With this advancement, Lviv became the,

> fourth city in Europe possessing such a means of transport.[16]

The exhibition was in part situated in one of Lviv's showpiece creations – a diadem of green spaces and parklands of which the Strijsky Park founded in 1887 was the centrepiece. For the visit of Franz Josef in 1905 a ring boulevard was constructed around the historic city centre, arranged according to the direction of the Inspector of Municipal Green Spaces, Arnold Rohring.

Although when looking at the architecture of Lviv, it might appear to be a common Central European mix of historical styles, from medieval craft, neo-Renaissance styles melded with the later Secessionist and Art Nouveau forms, this would be to deny the progeny of the Lviv School of Architecture and the construction firms employed. The earlier of these were Alfred Kamienobrodzki, Wincenty Rawski and Jan Schultz who based much of their architecture on Italian models. These leaders were followed by Teodor Talowski and Kazimierz Moklowski who worked in a more Romantic and Picturesque idiom. Of the greatest interest to modernism are the third group Julian and Alfred Zachariewicz, Ivan Levyns'kyj, Tadeusz Obiniski and Roman Feliński.

As in Brno, architects, designers and constructors formed very close networks to provide Lviv with some prototype architectural schemes. The Mikolasch Arcade, 1899-1901, was erected using reinforced concrete to the designs of Alfred Zachariewicz and Ivan Levyns'kyj who by this time was owner of an associated construction company and building suppliers. Design and build was very much part of Lviv's urban fabric as buildings were put up by Levyns'kyj' office in collaboration with others – Zygmunt Gorgolewski, Municipal Theatre, 1897-1900 and the Central Station, Władysław Sadlowski, 1901-1904, (2.23). Although many of the buildings outwardly exhibit a mix of neo-Baroque and Secessionist touches, they belie their originality in the use of reinforced concrete construction orchestrated by a design and build co-operative headed by Levyns'kyj and Zachariewicz.

By 1903 a new partner had joined, Jožef Sosnowski, who formed the Sosnowski–Zachariewicz Company for concrete construction using the leads from Auguste Perret and the developments from there in the Hennebique system of construction. Despite others before him using reinforcing iron bars, e.g. Smirke, Anatote de Bandot and Victor Contanim, it was Francois Hennebique who understood better than anyone that iron, or preferably steel rods, take up the tension stresses while the dense concrete absorbs the compression stresses. This understanding of structure and stress would over the next ten years herald new developments in architectural forms that could not have been foreseen.

7. Wroclaw

Wroclaw is another city which has been occupied and subjected to name changes over the centuries. Known as *Vradislav* (Czech), *Wratislavia* (Latin) and *Breslau* (German) and in earlier history through the Polish Diocese and as the Lower Silesian Capital as Wrezlave. In 1175 simplified versions of the diocesian form *Sigillum civvitalis Wracislavie* refers to *Wrezlave*. From medieval times both Czech and Polish forms as *Vratislav* and *Wrocislaw* respectively were used. Once the Polish form gained precedence there was further simplification in three stages, *Wrocislaw* > *Wrotslaw* > *Wroclaw*. This changing of names and influences is accompanied in the architectural detailing of the city from the medieval vernacular to High Gothic and through the beloved neo-Baroque of Viennese taste. All were imported as a signifier of learning and culture once German dominance was established as the newly named city of Breslau.

Throughout history the city enjoyed wealth as a trading capital of the Holy Roman Empire and as a member of the Hanseatic League. The original rulers of the city and

2.23 Władysław Sadlowski, Central Railway Station, Lviv 1901-04

1 Echoes of Olbrich's Secession building and Wagner's Metropolitan Railway structures are seen in the exterior façade and entrance porch 2

the province were the Piasts who were deposed by the Habsburgs in 1675 and from that time for many years Wroclaw became a much coveted and argued-over prize between Hohenzollerns and the Kings of Prussia, until 1860 when German/Prussian dominance saw the manufacture of linen and cotton turn a slightly backward agricultural and mercantile duchy into a commercial hub with a modern city.

During the earlier Habsburg reign much of the beautiful, monumental original Baroque was created by the hands of a true master, Fischer Von Erlach, who was much admired by his antecedents, particularly in the 1910s and 1920s by Hans Poelzig and Max Berg. It is through Max Berg whose major work the Hala Ludowa/Stulecia, 'The People's Hall', *Jahrhundert Halle* (Centennial Hall) (2.24) a dome of reinforced concrete able to house 5,000 - 7,000 people, that Wroclaw can claim to have one of the first purpose-built functional modern buildings on record. Designed in 1910 and built between the years 1911-1913 when it opened to mark centennial celebrations. Even though this building predates both Perret's and Le Corbusier's use of concrete in a functional form (as in Corbusier's Maison Dom-ino 1914 and Perret's Casablanca Docks, 1915), Hala Ludowa remains absent from many histories of modernism / twentieth century architecture.

Dennis Sharp highlights Hala Ludowa as being:

> the largest building of its kind anywhere in the world a clear indication that architect and engineer co-operation had made its mark. Dramatically constructed in reinforced heavy concrete, Centennial Hall's (Jahrhundert Halle's) Hala Ludowa's 213 feet diameter was far more impressive inside than out. Unable at the time to develop a system of glazing that would follow the curve of the dome, the designers constructed rings of windows at various intervals up the curve [to fit] and a traditional lantern at the top.[17]

Hala Ludowa was a fitting tribute to the people who rose up in 1813 against Napoleon Bonaparte. To this date Max Berg is rarely celebrated as an influential modernist Architect who in concert with István Medgyaszay – Godollo Studios, Budapest 1904; Vezsprém and Sopron Theatres and Hans Poelzig's, Milch Chemical Factory, Poznan 1912, (earlier German Posen) gave Central European cities their modern appearance. The technical accomplishment of span and circumference of the dome could be said to elevate the work to the pinnacle of construction methods and materials of the first decade of the twentieth century – as with Medgyaszay's studios. The contributions of Francois Hennibique and Auguste Perret in the development of reinforced concrete architecture must be acknowledged, although their early structures up to 1915 were concerned with horizontal and vertical beam and post construction and at no time did

they work with domes as did Berg and Medgyaszay. These advanced forms of architecture and their innovative uses were seen throughout central Europe as part of modernization at the turn of the century and a very necessary component of regeneration and rebuilding after the Great War. This greatly increased activity in building drew upon a wide range of historical precedents, as witnessed in the use of Ottoman and Finno-Ugric/Magyar forms. However, in contrast to these broad historical influences, this period was also to mark the emergence of distinct national styles together with newly developed Rondo-Cubism of German influence, effectively deployed to anchor the ethnic antecedents of the nations.

2.24 Max Berg, Hala Ludowa, *Jahrhundert Halle,* Centennial Hall, Wroclaw 1913

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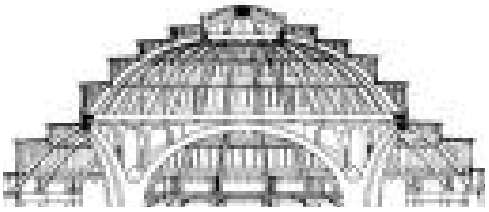

4

5

Aerial view, Exterior and Interior views showing size of auditorium constructed from reinforced concrete with glazed tiers

Notes to Chapter 2

[1] Gerolymatos A., *The Balkan Wars,* Basic Books, New York, 2002
[2] Op.cit., Blau and Platzer, 1999, Laslo, p.136-137
[3] see, Kropotkin P. (Prince), *Fields, Factories and Workshops,* Transaction Publishers, New Brunswick & London, 1993
One of the first commentators, as both aristocrat and anarchist thinker, to understand how meticulous research of dominant tendencies within society could allow for a redirecting of both agricultural and industrial production in a world of increasing demand.
[4] Op.cit., , Blau and Platzer, 1999, Mihelic, p.197-198
[5] Op.cit, , Blau and Platzer, 1999, Achleitner, p.102,
[6] This understanding of Plecnik is taken from extensive conversations and site visits in the company of Dr Peter Krecic, one of the world's foremost authorities on Plecnik as custodian of Plecnik's house and archive.
[7] Krecic P., *Plecnik The Complete Works*, Academy Editions , London, 1993, p.18
[8] Ibid.p.18
[9] Slapeta V., (ed.)., *Jan Kotera The Founder Of Modern Czech Architecture*, Municipal House/ Kant, Prague, 2001
The most complete monograph on Kotera to date, with contributions from many of the world's authorities.
[10], Blau E and. Troy N.J., (eds.), *Architecture and Cubism*, MIT Press, Cambridge Ma., 2002, Murray, p.45
[11] Dance G. R.A., Professor of Architecture, *Inaugural Address*, 1798, quoted from Beard G., Robert Adam
[12] Much of the information regarding Kotera and the development of the Czech Modern Movement is taken from interviews with Professor Rostislav Svacha (Department of Art History, Charles University, Prague) and Dr Petr Krajci (Director of the National Technical Museum, Architectural Archive, Prague) - two of the leading experts in this field. See bibliography for their contribution to a number of publications.
[13] Op.cit., Slapeta, 2001, p.24
[14] http://www.ipm.cz/EN/BRNO/years.6html, p.1, 2005
[15] http:/ww2.fce.vutbr.cz/bvv/i104e.htm, 2, 1998, Brno Trade Fair (BVV), Faculty of Civil Engineering, University of Brno
[16] Op.cit, Blau and Platzer, 1999, Zuk, p.145
[17] Sharp D., *A Visual History of Twentieth-Century Architecture*, Heinemann/Secker & Warburg, London, 1973, p.49